



COMMONWEALTH of VIRGINIA

Douglas W. Domenech
Secretary of Natural Resources

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DRAFT, 2013

STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE
and
STATIONARY SOURCE PERMIT TO OPERATE

This permit replaces your minor New Source Review permit dated September 18, 2002 as amended July 8, 2008.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Department of Corrections
Nottoway Correctional Center
P.O. Box 488
Burkeville, Virginia 23922
Registration No.: 30780

is authorized to operate

a furniture assembly shop and support facilities for a prison

located at

Nottoway Correctional Center
Rt. 650 Schutt Road
Burkeville, Virginia

in accordance with the Conditions of this permit.

Approved on _____.

Robert J. Weld,
Regional Director

Permit consists of 11 pages.
Permit Conditions 1 to 31.

INTRODUCTION

This permit approval is based on the modified source permit amendment application dated June 28, 2012. Prior approvals for the facility are based upon applications dated December 27, 1982 and September 28, 2001, amendment information dated August 19, 2002 and May 19, 2008, including supplemental information dated February 8, 1983, March 23, 1983 and April 24, 2008. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-20 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

1. **Equipment List** - Equipment at this facility consists of the following:

Equipment permitted prior to the date of this permit				
Reference No.	Equipment Description	Rated Capacity	Federal Requirements	Original Permit date
WS2, SW3	DeVilbiss VJA 560 spray guns	4.0 gallon/hr each	None	01/03/2002
B1, B2, B3	3 Kewanee coal-fired boilers	9.6 MMBtu/hr each	40 CFR 63 Subpart JJJJJ	04/07/1983
WS1	Various woodworking equipment, including one wood waste collection / transfer system	N/A	None	4/7/1983

Additional Equipment installed at the facility				
Reference No.	Equipment Description	Rated Capacity	Federal Requirements	Manufacture / Install Date
G1	Caterpillar 3406 Generator	375 BHP / 250 kW	40 CFR 63 Subpart ZZZZ	1982 / 1984
G2	Caterpillar 3406 Generator	375 BHP / 250 kW	40 CFR 63 Subpart ZZZZ	1982 / 1984
G3	Koehler 250 R 02281 Generator	390 BHP / 250 kW	40 CFR 63 Subpart ZZZZ	1986 / 1988
G4	Koeler 500 REOZJB Generator	565 BHP / 500 kW	40 CFR 60 Subpart IIII; 40 CFR 63 Subpart ZZZZ	2011/Jan 2012
G5	Caterpillar 3412 Generator	545 BHP / 350 kW	40 CFR 63 Subpart ZZZZ	1982 / 1984
G6	Koehler 100REZJB Generator	190 BHP / 100 kW	40 CFR 63 Subpart ZZZZ	2003 / 2004
G7	Caterpillar 3412 Generator	545 BHP / 350 kW	40 CFR 63 Subpart ZZZZ	1982 / 1984
G8	Koehler 350RE02V Generator	545 BHP / 350 kW	40 CFR 63 Subpart ZZZZ	2003 / 2004
G9	Caterpillar 3406 Generator	519 BHP / 350 kW	40 CFR 63 Subpart ZZZZ	1995 / 1995

Exempt equipment previously installed at the facility:				
Reference No.	Equipment Description	Rated Capacity	Requirements	Manufacture / Install Date
LPG1	Propane boiler – provides steam for woodworking shop	0.67 MMBtu/hr	N/A	1983
T1	Diesel Oil Storage Tank	5,000 gallons	N/A	1983
T2	Diesel Oil Storage Tank	10,000 gallons	N/A	1983

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.
(9 VAC 5-80-1180.D.3. and 9 VAC 80-830)

2. **Boiler Emission Controls** - Emissions from the coal-fired boilers shall be controlled by proper operation and maintenance of combustion equipment. The permittee shall develop, maintain, and have available to all operators good written operating procedures and a maintenance schedule for the coal-fired boilers. These procedures shall be based on the manufacturer's recommendations, at a minimum.
(9 VAC 5-80-850)
3. **Woodshop Emission Controls** – Particulate emissions from the woodshop operations shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection and shall be in operation when the woodshop is operating.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)

4. **Fugitive Dust Emission Controls** – Fugitive particulate emissions from the collection, transfer and handling of wood waste shall be controlled by rotary air lock from the collector to an enclosed bin.
(9 VAC 5-80-1180, 9 VAC 5-50-260 and 9 VAC 5-50-90)
5. **VOC Work Practice Standards** – At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution practices for minimizing emissions. Volatile Organic Compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.
(9 VAC 5-50-20 F, 9 VAC 5-80-1180 and 9 VAC 5-50-260)
6. **Monitoring Devices** – The wood fabric filter shall be equipped with devices to continuously measure the differential pressure drop across the filter. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, at a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the wood shop fabric filter is operating.
(9 VAC 5-80-1180 D)

OPERATING LIMITATIONS

7. **Adhesive Throughput** – The throughput of adhesive shall not exceed 16,600 gallons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180)
8. **Boiler Fuel** - The approved fuel for each Kewanee boiler is coal. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-1180)
9. **Generator Fuel** - The approved fuel for the supporting generators is low sulfur diesel fuel as defined in Condition 11. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-850)
10. **Boiler Fuel Throughput** - The Kewanee boilers (Units B1, B2 and B3) shall consume a total of no more than 4,650 tons of coal per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180)

11. **Fuel Specifications** - The permitted fuels for facility equipment shall meet the specifications below:

COAL:

Maximum sulfur content per shipment: 1.0 %

Maximum ash content per shipment: 7.0%

LOW-SULFUR DIESEL FUEL which meets the ASTM D975 specification for Grades 1 or 2 low-sulfur diesel fuel:

Maximum sulfur content per shipment: 0.02%

(9 VAC 5-80-1180 and 9 VAC 5-80-850)

12. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of coal and diesel fuel. Each fuel supplier certification shall include the following:

- a. The name of the fuel supplier;
- b. The date on which the coal and/or diesel fuel was received;
- c. The quantity of coal and/or diesel fuel delivered in the shipment;
- d. A statement that the diesel fuel complies with the American Society for Testing and Materials specification ASTM D975 for Grades 1 or 2 Low Sulfur diesel fuel.
- e. The sulfur content of the coal
- f. The ash content of the coal;
- g. The sulfur content of the diesel fuel; and
- h. The method used to determine the sulfur content of the coal and diesel fuel.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 11. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.

(9 VAC 5-80-1180 and 9 VAC 5-80-850)

13. **Generator Operation** - The supporting emergency generators (G1 through G9) are each limited to 500 hours per year operation and are to be used for providing power at the location during interruption of service from the normal power supplier, to participate in the Emergency Load Response Program (ELRP)/Independent System Operator (ISO) load program, and for periodic maintenance and testing.

(9 VAC 5-80-850)

EMISSION LIMITS

14. **Boiler Emission Limits** - Emissions from the operation of each coal-fired boiler (B1, B2 and B3) shall not exceed the limits specified below:

Particulate Matter (PM)	3.81 lbs/hr
PM-10	2.25 lbs/hr
Sulfur Dioxide	11.24 lbs/hr
Nitrogen Oxides (as NO ₂)	3.44 lbs/hr
Carbon Monoxide	3.99 lbs/hr
Volatile Organic Compounds	0.47 lbs/hr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition(s) 8 and 11.
(9 VAC 5-80-1180)

15. **Boiler Emission Limits** – Annual emissions from the combined operation of the coal-fired boilers (B1, B2 and B3) shall not exceed the limits specified below:

Particulate Matter (PM)	26.57 tons/yr
PM-10	15.69 tons/yr
Sulfur Dioxide	78.40 tons/yr
Nitrogen Oxides (as NO ₂)	23.99 tons/yr
Carbon Monoxide	27.83 tons/yr
Volatile Organic Compounds	3.28 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition(s) 8, 10 and 11.
(9 VAC 5-80-1180)

16. **Emission Limits** – Emissions from the woodshop’s dust collection system shall not exceed the limits specified below:

Particulate Matter	0.01 gr/dscf	18.0 tons/yr
PM-10	0.01 gr/dscf	18.0 tons/yr

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

17. **Emission Limits** – Emissions from the adhesive application process shall not exceed the limits specified below:

Volatile Organic Compounds	62.23 lbs/hr	44.0 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 7.

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

18. **Emission Limits** – Hazardous Air Pollutant (HAP) emissions, as defined by 112(b) of the Clean Air Act, from the entire facility shall not exceed 7.4 tons per year of any individual HAP or 19.9 tons per year of any combination of HAPs, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-850)

19. **Visible Emission Limit** - Visible emissions from the fabric filter shall not exceed five percent (5%) as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

(9 VAC 5-80-1180, 9 VAC 5-50-80 and 9 VAC 5-50-260)

20. **Visible Fugitive Emission Limit** - Visible fugitive emissions resulting from the collection, transfer, or handling of wood waste shall not exceed ten percent (10%) opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

21. **Boiler Visible Emission Limit** - Visible emissions from each of the Kewanee coal-fired boilers shall not exceed 20 percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent (30%) opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

(9 VAC 5-50-20 and 9 VAC 5-50-80)

RECORDS

22. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
- a. Annual consumption of coal, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;
 - b. Monthly and annual throughput (in gallons) of each adhesive used in the adhesive application process. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;
 - c. The monthly and annual hours of operation for each support generator and reason for operation, including participation in the ELRP/ISO load program, documentation of a regional transmission organization-declared emergency, emergency operation, testing of a unit, and/or maintenance. The annual hours of operation shall be calculated monthly as the sum of each consecutive 12-month period by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
 - d. All fuel supplier certifications;
 - e. Material Safety Data Sheets (MSDS) or other vendor information showing VOC content, HAP content, water content, and solids content for each adhesive and clean-up solvent used;
 - f. Monthly and annual emissions of VOC from the adhesive application process, including associated clean-up solvent, calculated monthly as the sum of each consecutive 12-month period;
 - g. Monthly and annual emissions of HAPs to verify compliance with the individual and total HAP emission limitations in Condition 18. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months; and
 - h. Scheduled and unscheduled maintenance and operator training.

These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-1180, 9 VAC 5-50-50 and 9 VAC 5-80-900)

23. **Emissions Testing** – The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided

when requested at the appropriate locations and safe sampling platforms and access shall be provided.

(9 VAC 5-50-30 F and 9 VAC 5-80-1180)

GENERAL CONDITIONS

24. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
- b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
- c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
- d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.

(9 VAC 5-170-130, 9 VAC 5-80-1180 and 9 VAC 5-80-850)

25. **Maintenance/Operating Procedures** – The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance;
- b. Maintain an inventory of spare parts;
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum;
- d. Train operators in the proper operation of all such equipment and familiarize the operator with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9VAC 5-50-20 E and 9 VAC 5-80-1180 D)

26. **Record of Malfunctions** – The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.
(9 VAC 5-20-180 J and 9 VAC 5-80-1180 D)
27. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Blue Ridge Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone, or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Blue Ridge Regional Office in writing.
(9 VAC 5-20-180 C and 9 VAC 5-80-850)
28. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-20-180 I and 9 VAC 5-80-850)
29. **Permit Suspension/Revocation** - This permit may be revoked if the permittee:
- a. Knowingly makes material misstatements in the permit application or any amendments to it;
 - b. Fails to comply with the terms or conditions of this permit;
 - c. Fails to comply with any emission standards applicable to a permitted emissions unit;
 - d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
 - e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time that an application for this permit is submitted;
 - f. Fails to comply with the applicable provisions of Articles 6, 8 and 9 of 9 VAC 5 Chapter 80.
(9 VAC 5-80-1210 F and 9 VAC 5-80-1010)
30. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Blue Ridge Regional Office of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-1240 and 9 VAC 5-80-940)

31. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-1180 and 9 VAC 5-80-860 D)